Research Article

Stakeholder Input in Establishing an Evaluation Plan for Tobacco Counter-Marketing Campaigns

Rebecca Murphy-Hoefer, Marco S. Andrade, Dorean E. Maines, and Maurice Martin

ABSTRACT

Background: *Maine was one of eight states to consistently meet funding recommendations for tobacco control from the Centers for Disease Control and Prevention (CDC) and one of three states to experience 45%-60% reductions in youth smoking rates since 1999.* ***Purpose:*** *The state's tobacco control coalition, Partnership for a Tobacco-Free Maine, sought to develop an evaluation plan based on the framework from the CDC's Introduction to Program Evaluation for Comprehensive Tobacco Control Programs and the integration of the CDC's Designing and Implementing an Effective Tobacco-Counter-Marketing Campaign.* ***Methods:*** *The coalition conducted key informant interviews and then met with stakeholders in Maine to address the design, management, implementation and evaluation of the state's tobacco counter-marketing campaigns.* ***Results:*** *The priorities identified included the need to improve communication among all stakeholders, to synchronize local and state campaigns, to elicit audience insights among specific populations and to link program inputs with outcomes through evaluation. Meeting participants noted that lessons learned should be shared through internal mechanisms and external publications.* ***Discussion:*** *We describe the practical application of state and national expertise and resources to the development of Maine's tobacco counter-marketing campaign evaluation.* ***Translation to Health Education Practice:*** *This article may help other public health programs to work with stakeholders to identify program and evaluation needs in the development of a health communication evaluation.*

Murphy-Hoefer R,. Andrade MS, Maines DE, Martin M. Stakeholder input in establishing an evaluation plan for tobacco counter-marketing campaigns. Am J Health Educ. *2011;42(2):66-73. This paper was submitted to the* Journal *on May 29, 2009, revised and accepted for publication on October 20, 2010.*

BACKGROUND

In Maine, one-fifth of the adult population smokes cigarettes[1] causing an estimated 2,235 premature deaths each year.[2] For every person who dies from tobacco use, 20 others suffer from tobacco-related illnesses.[3] These health issues cost the state of Maine more than $534 million in smoking-attributable productivity losses and $550 million in health care expenditures.[2]

The Institute of Medicine's *Ending the Tobacco Problem: A Blueprint for the Nation* outlines recommendations to support comprehensive state tobacco control programs, including mass media campaigns.[4] Mass media campaigns can reduce smoking prevalence when combined with other effective community-based interventions such as smoking bans and restrictions, higher prices for tobacco products, smoking cessation interventions, and telephone quitlines.[5]

The Centers for Disease Control and Prevention (CDC) recommends that health communication interventions, also described as tobacco counter-marketing campaigns, should be considered for ad-

Rebecca Murphy-Hoefer is a research associate at the A.L. Burruss Institute of Public Service and Research, Kennesaw State University, Kennesaw, GA 30144; E-mail: murphy.rebecca@ymail.com. Marco S. Andrade was a research associate at the Maine Center for Public Health, Augusta, ME 04330. Dorean E. Maines is a program manager at the Maine Centers for Disease Control and Prevention, Augusta, ME 04330. Maurice Martin is the chairperson of the Department of Community Health and Recreation at the University of Maine at Farmington, Farmington, ME 04938.

dressing the agency's goals for comprehensive tobacco control programs, including: (1) preventing initiation among youth and young adults, (2) promoting quitting among youth and adults, (3) eliminating exposure to secondhand smoke, and (4) identifying and eliminating tobacco-related disparities among specific populations.[6] These campaigns can also influence public support for tobacco control funding and contribute to a supportive climate for school, community, state and national policies to prevent tobacco use.[7]

Maine was one of eight states to meet the CDC's minimum funding recommendation and the only state to have met the minimum funding recommendation every year since the release of the first *Best Practices for Comprehensive Tobacco Control Programs* in 1999.[6] Since then, Maine is one of three states to have experienced 45%-60% reductions in youth smoking rates with sustained comprehensive statewide programs.[6] In 2005, the state was the first to receive "straight A's" on the American Lung Association's State Tobacco Control Report Card.

Arizona, California, Florida, Massachusetts, Minnesota, New York City and Oregon have documented the effectiveness of statewide tobacco counter-marketing campaigns.[6] To explore the best practices in health communication efforts for tobacco control further, the Maine Center for Public Health on behalf of the Partnership for a Tobacco-Free Maine sought to integrate media evaluation with future campaigns. Using the conceptual framework from the CDC's *Introduction to Program Evaluation for Comprehensive Tobacco Control Programs* and integrating the CDC's *Designing and Implementing an Effective Tobacco-Counter-Marketing Campaign*, the Maine Center for Public Health interviewed key informants in the state about their health communication programs, and key informants outside the state with experience in media evaluation.[8,9,10] These key informants identified stakeholders who could help design Maine's tobacco counter-marketing campaign evaluation.

PURPOSE

This article shares the strategies that were generated during key informant interviews and meetings with stakeholders to guide future efforts in tobacco counter-marketing campaigns in Maine. This information may be helpful to other state programs that plan to evaluate their health communication programs.

METHODS

In the spring of 2008, the Maine Center for Public Health's evaluation team began to develop a new media evaluation plan (Figures 1 and 2).[9,10] The first step in the CDC's *Framework for Program Evaluation* is to engage stakeholders.[8] The CDC has identified three main groups of stakeholders necessary for evaluation: program staff (e.g., management, partners, advertising agency, coalition members), target population (e.g., target population for the media campaign, policy makers, advocacy groups), and the primary intended users (main users of the evaluation findings or those who make decisions about the media campaign). These groups are not mutually exclusive. The Maine Center for Public Health identified key informants in Maine: program staff, members of the target population (including policy makers) and in-state and local-level partners. In addition, they identified key informants from outside of Maine by reviewing health communication literature, primarily in tobacco control, and querying authors of papers delivered at the most recent national tobacco control and CDC health marketing conferences. For Phase 1 of this effort, the evaluation team developed a discussion guide[9,10] to conduct four conference calls and individual calls with state and national tobacco control program and heath communication experts (both with and without tobacco control experience). Of the 21 experts identified, 16 participated in the conference and individual calls in the summer of 2008. The calls lasted one-to-three hours and were recorded, transcribed by Cambridge Transcriptions, and summarized according to the stage of evaluation, as defined by the CDC.[9,10] These internal documents were distributed to the key informants for review.

The second phase, a one-day meeting in the late summer of 2008, guided the process of integrating evaluation into the

Figure 1. CDC's Framework for Program Evaluation[8]

1. Engage Stakeholders
2. Describe the Program
3. Focus the Evaluation Design
4. Gather Credible Evidence
5. Justify Conclusions
6. Ensure Use and Share Lessons Learned

Figure 2. CDC's Designing & Implementing an Effective Tobacco Counter-Marketing Campaign[10]: Managerial Aspects of Campaigns

1. Planning Your Counter-Marketing Program
2. Managing and Implementing
3. Gaining and Using Audience Insights
3. Reaching Specific Populations
4. Evaluating the Tobacco Counter-Marketing Program

next five-year tobacco counter-marketing plan. Twenty-two stakeholders directly involved with the day-to-day operations of the tobacco counter-marketing campaigns and evaluation met with local and state partners, program staff and contractors, as well as three national experts who were key informants during Phase 1. Forty stakeholders who were not directly responsible for day-to day operations also participated. This meeting format ensured that the evaluation would be designed to answer questions important to stakeholders, ensure that the evaluation would be used, increase support for a long-range plan and build capacity in evaluation.

RESULTS

Engaging Stakeholders

During Phase 1, conference calls and one-on-one interviews with key informants emphasized the importance of communications among stakeholders. Key informants agreed that stakeholders need to understand roles, communication systems and decision making at each stage of evaluation. They added that communication should honor the expertise of each stakeholder group (e.g., advertising agencies, state and local health department staff, community partners, evaluation contractors, state and local-level coalition members, and funding agencies) given that each group has unique and valuable expertise and should invest the time necessary to build bridges to other groups. Several issues were raised about meeting face-to-face on a regular basis. Although it is preferred, it is not always possible because of time, distance and weather conditions.

Key informants stressed the importance of state and local partners working collaboratively to integrate statewide campaigns with local activity. They elaborated that the interaction between the multiple components is more effective than the individual efforts alone. For example, California, Indiana and New York recognize the pivotal role of local partners, particularly in reaching out to the public. These states have contracts with local health departments and other community-based organizations. Each local-level organization has work plans and objectives (i.e., strategic plans) that are developed in accordance with indicators of state and community excellence. In California, the state program has implemented a campaign about the effects of secondhand smoke in multi-unit housing to support local-level efforts. In New York, when the state conducts a campaign, it provides templates for media materials and talking points to local partners to increase the likelihood that they will use a similar message. These same states noted that when partners speak with one voice the message is more readily comprehended and the role of the state is to perform that integration. For example, Indiana has been able to mobilize state and local grantees quickly. The stakeholders at the local level know who their policy makers are and they are ready to make calls when needed with a single health communication message.

In regard to target populations, the following key points were generated by the key informants: transparency through information sharing is needed with stakeholders at every stage, program goals and objectives should be clearly articulated, stakeholders should be educated about the process of developing a campaign and formative evaluation, and a plan should not be implemented until all stakeholders agree on program direction for program sustainability. In New York State, the decision of which and how many advertisements to run each year must be cleared at several levels. This process typically takes up to one year. If an advertisement is not approved in time, existing and pre-approved advertisements are used. Several key informants noted that decision makers (e.g., health commissioner, health department officials and legislators) should be educated about tobacco counter-marketing campaigns.

The primary intended users of the evaluation are those in a position to make decisions about a paid media campaign, such as the project director from the health department or foundation, agency staff and evaluators.[9] For example, New York State has weekly meetings with its advertising contractor, evaluator and program manager. For evaluation purposes, an Indiana state representative works with the advertising and public relations contractor to obtain the information needed to conduct media tracking surveys.

Describing the Program

The second step identified in the CDC's *Framework for Program Evaluation* is to describe the program.[8] We found that integrating components of the CDC's *Designing and Implementing an Effective Tobacco Counter-Marketing Campaign* worked well for describing the program in relation to the development of a media evaluation (Figure 2).[10] Specific tobacco counter-marketing program components include planning a program, implementing and managing a program, gaining and using audience insights and reaching specific populations.[10]

One of the main findings of evaluation in New York shared by a key informant was the importance of having a good mix of advertisements, not just those with high emotional content. The mix of advertisements depends on resources and the focus of the campaign as noted by several key informants. Campaigns in New York have focused on smokers and tend to have three or four campaigns per year, with several advertisements for each campaign. In California, the focus has been at the community-level and typically five or six advertisements will run each year. "Some advertisements have longer staying power," as noted by key informant David Cowling, PhD, California Tobacco Control Program. He added that evaluators should evaluate the level of saturation and determine the cutoff point for effectiveness. One method used to prolong the staying power of advertisements is to have a group of advertisements that are shown during a specific period of time, also known as media flights, rather than showing the same advertisement continually.

Key informants said that gaining and using target audience insights, identifying a sound theoretical foundation for each campaign and using health promotion processes are important parts of formative research and evaluation.[10] Several key informants stressed that insight from the target audience, not the health department

staff or political entities, should carry the most weight when identifying what types of advertisements will have the most influence on behavior change. The consensus of the key informants was that even if a budget is limited, formative research needs to be conducted to have confidence in the messages being used.

In Colorado, a guiding principle is to be true to the formative research. If an administrator does not approve a concept generated by the focus groups, then program staff members revisit the research and find a way to use another concept from the target audience. For example, focus groups of pregnant smokers said that money weighed more heavily than the health of the unborn baby. However, a message focused on finances was not accepted by decision makers. After revisiting the results of the formative research, stress was noted as another issue for the focus group participants. Decision makers approved this topic, and the campaign resonated well with the target audience. As the former media director of Colorado's State Tobacco Education and Prevention Program said, "If you're going to conduct the research, you should listen to it."

Key informants said that focus groups allow for in-depth discussion about audience insights and campaign components. Conducting focus groups may be time-consuming and expensive, informants said, but they provide valuable information and help decision makers understand the issues from the target audience's point of view.

Ideally, specific campaigns should be developed for every targeted population. If this is not possible key informants said that it is necessary to prioritize specific populations and the campaign decision makers need to be willing to make tough decisions about where a campaign can have the most effect. Nevertheless, the same campaign often can be used by multiple populations by changing the actors or the language, but keeping the overarching theme the same, as noted by a key informant from California.

The media channel should be appropriate for the population. Dr. Cowling shared that evaluations completed in California show that most people, regardless of their primary language, consume media in English – particularly through television. Media campaigns in California have been more successful among high and middle socioeconomic status groups than among low socioeconomic status groups. In addition, different races/ethnicities consume different types of media. According to an informant from California, African Americans tend to consume more television, while Hispanics consume more radio. Radio may be more cost-effective than television to reach non-native speakers in their own language, and other specific populations, especially during the summer. Another participant highlighted the importance of seasonal timing, noting that during election time, television and other media may be more expensive and placement may be a challenge.

In rural areas, key informants stressed that local partnerships are important in deciding what works on a local level, such as free weekly newspapers, signs at local post offices and shopping centers. In some rural areas of New York, for example, residents must use one road. The local partners know that if a billboard is placed there, the entire community will see it. Indiana tobacco control health communication specialists use earned media to reach areas not covered through paid media. These specialists in Indiana have extended media reach through news releases tailored to local communities, sponsorships and creating new or using existing events to gain earned media coverage. Indiana monitors state and local coverage of the news by contracting with a clipping service to clip every tobacco-related article in daily and weekly papers. These clips are then coded by topic and the coverage is analyzed at least monthly.

Designing the Evaluation

All key informants agreed that the evaluation of health communication efforts should be coordinated with the evaluation of the overall tobacco control program from the beginning of a campaign. Several different logic models and evaluation designs may be needed at once to evaluate multi-component media campaigns, as noted by key informant Dr. David Sly of Florida State University. He added that evaluation needs must then be prioritized. Key informants discussed that while independent (i.e., outside) evaluation is unbiased; intimate knowledge of the program, goals of a campaign, theoretical foundation of a campaign and media messages are also advantageous.

Key informants discussed how different types of evaluation are used, such as formative, process and outcome (short-term, intermediate and long-term outcomes). California has been using online panels to test advertising concepts as part of their formative research and evaluation. Before the advertisements are produced, screen shots and voice-overs (called animatics) are streamed through the Internet to panel participants. Their feedback is used to decide which advertisements to produce. A web-based process evaluation system is used in California, Indiana and New York to monitor local activity. Local partners are required to have an evaluation plan for each objective in their work plan and to submit an evaluation report at the end of each funding cycle. The evaluation plans and subsequent reports may include a media component. Partners record the cost of paid and earned media. This type of system provides a mechanism for assessing expenditures and accountability. With these data, Indiana program officials have been able to respond to legislative requests about specific local activity. A process evaluation method that wasn't effective in one of the key informant's states was to analyze specific sites in terms of identify specific sites in terms of their current progress with tobacco control (i.e., "the weather") instead of the overarching question of how they had changed over time and what roles the local partners played in that change (i.e., "the climate").

Key informants discussed that a broad design can capture two or more individual designs, that cross-sectional designs can be conducted over time with a longitudinal component and that a cohort design can explain variations between those who re-

member versus those who do not remember various advertisements. They also said that designs must feature some type of variation in exposure, such as in the media buy according to geographic region, in campaign cycles over time, in audience segments, or between those who remember versus those who do not remember advertisements. As noted by Dr. David Sly, "Four components are required to attribute effects to a media campaign and provide results for program accountability: appropriate level of exposure and awareness among the target population, program outcomes change, association with exposure to the campaign, and other possible explanations (e.g., tax increases, secular trends)." Additional key points discussed by the key informants was that data collection should be carefully monitored, match the target audience, start with baseline data and use consistent survey items over time to allow comparisons with follow-up surveys. The New York Adult Tobacco Survey includes short and specific questions about advertisements, based on three criteria: confirmed awareness, personal meaning to the respondent and personal action (i.e., did the respondent take action, such as talking to another person about the advertisement).

A few key informants believe that random digit dialing (RDD) may be inefficient for certain target audiences and that purchased lists may be more cost-effective than RDD. A few key informants have also purchased sampling frames from vendors or have used the registrars' lists from universities. An additional point was that incentives may be needed to motivate the target audience to participate in an evaluation.

Historically, California and New York used the telephone interview method to conduct their outcome surveys. However, both have recently changed to an online media tracking survey. This web-based method is less expensive and allows for different types of evaluation. Panelists can screen the whole or part of an advertisement and report their reaction. Screen shots may also help jog the panelist's memory before questions are asked to confirm awareness and campaign evaluation. Participants on the panel are recruited through knowledge networks, which tend to offer them free Internet service as an incentive. Sampling and period of recruitment are two significant variations in panel designs. Sampling may be population- or convenience-based (such as the opt-in method of recruitment). The population-based method is more rigorous, but often must be sacrificed to sample enough smokers. The period of recruitment may be a single panel (New York) or a panel cohort that completes surveys during a two-year period (California). A two-year cohort allows for longitudinal data.

California uses population-based samples that are followed for two years. The sample initially included approximately 540 smokers and now has added opt-in panels to bring the sample up to 900 smokers and 1,200 nonsmokers. New York uses an opt-in sample of participants who are recruited based on criteria the evaluators choose (e.g., male smokers). In 2010, the sample was approximately 1,500. Disadvantages of online surveys noted by the informants are that a large percentage of the population, particularly low-income households, does not have a computer in the household or access to the Internet and the random component of population–based samples is absent.

The evaluation design should include detailed dissemination plans.[8] The annual report and independent evaluation report are still necessary, but the emphasis is moving toward developing a series of topical reports and management briefs for different stakeholders as identified by several key informants. For example, one key informant said that a legislative report should be shorter than other types of publications and should be packaged into "sound bites" and personal stories and quotes from the quitline. Publication in peer-reviewed professional journals adds to the sustainability of health communication interventions as agreed upon by the key informants.

Phase 2

In Maine, 65 stakeholders met for Phase 2 of the state's effort to design an evaluation plan. They discussed issues from the key informant interviews, literature reviews, and identified the following priorities.

Engaging Stakeholders

Participants recommended that stakeholders should create a work group to address stakeholder involvement, including defining roles, responsibilities, and common terminology. For example, they recommended using monthly phone calls to keep stakeholders informed.

Subgroups of stakeholders, such as the advisory committee, advocates, evaluators, targeted populations and legislative committee members, have unique issues. For example, advocates should be involved in ongoing communication through timely meetings. Advocates must have a means to share the action steps and progress of the media campaigns. Participants discussed the importance of planning how to share health communication campaign briefings, tobacco-related stories of constituents and program outcomes throughout the year.

Describing the Program

Program staff said that district tobacco coordinators should be included in the planning process, and regional media plans should be integrated into the statewide plan. They discussed making the most of media buys (e.g., two-for-one media buys), working with programs around the country for ideas and campaigns (e.g., the American Legacy Foundation's Great Start campaign to work with pregnant smokers), and creating media attention by sharing information about the program (e.g., evaluation findings).

The development of a communications systems map was discussed to show meetings and participants, decision-making points, and roles and responsibilities of decision makers. This kind of map can strengthen the focus on stakeholder involvement and streamline decision making. Convening regular meetings to debrief, monitoring progress and proposing adjustments were described as ways of providing timely communication among stakeholders.

To ensure a common understanding about the importance of the target audience, a few stakeholders said that they

should be educated and invited to attend focus groups. In addition, understanding the target audience improves the rationale for targeting harder-to-reach populations and why changes to a campaign are needed to be effective.

Participants said that the strategic plan should include a mix of statewide and targeted media to address specific populations. An example, in relation to reaching specific populations, was the consideration of using weekly and target audience specialty papers in campaign development.

The integration of earned media into the strategic plan was also indentified as a program need.

Designing the Evaluation

Participants described the need for an independent evaluation contractor and for adequate funding for evaluation. For example, Partnership for a Tobacco Free Maine needs more information to inform campaign development in the areas of the stagnating decline in adult smoking rates, cessation treatments, especially for smoking relapse and quit-line use. Conducting assessments for new health communication campaigns, including paid media, will help identify key ideas to incorporate into media campaigns. Focusing on intermediate outcomes as part of the Partnership for a Tobacco Free Maine's strategic planning process will enhance the existing evaluation plan.

Another evaluation priority that was identified was the tracking and reporting of earned media—letters to the editor, editorials, and feature stories—because they are useful to program planners, advocates and legislators. Tracking of other non-paid placements, such as brochures, posters, and collateral items (e.g., key rings) was also identified as useful.

The final step in the CDC's *Framework for Program Evaluation* is to ensure that the evaluation results are used.[8] Participants identified the need to include a plan for regular and predictable dissemination of lessons learned in the overall Partnership for a Tobacco-Free Maine strategic plan. The need for role clarification of evaluators, and the responsibilities regarding dissemination were identified. Participants requested reports that should address stakeholders. For example, getting timely campaign feedback to program planners is essential and informing stakeholders about how the program is making a difference for the common good, not only about program sustainability. Participants also said that reporting positive anecdotal stories should be balanced with reporting program outcomes. Partners are needed for program outcome dissemination. Meeting participants said that eventually Maine should consider establishing a data and information archive.

DISCUSSION

With the goal of guiding the process of integrating evaluation with future media plans, the Partnership for a Tobacco-Free Maine intends to use the valuable information gained from the key informants' and stakeholders' input. The framework from the CDC's *Introduction to Program Evaluation for Comprehensive Tobacco Control Programs* and the integration of the CDC's *Designing and Implementing an Effective Tobacco-Counter-Marketing Campaign* provided the structure necessary to move forward the evaluation needs of the Partnership for a Tobacco-Free Maine.[9,10] The overriding message from stakeholders was that communication among state and local health departments, partners, media campaign planners, and evaluators is important throughout every stage of evaluation.

Key informants and stakeholders discussed the need to synchronize local and state efforts and to gain audience insights among specific populations. Gaining and using target audience insights, identifying a sound theoretical foundation for each campaign and using health promotion processes are important parts of formative research and evaluation.[10] Conducted in the early stages of campaign development, formative research involves analysis of the audience by reviewing health status measures (e.g., Behavioral Risk Factor Surveillance System, Youth Risk Behavior Surveillance System), demographics, psychographics, media habits and attitudes about certain issues. Published research may provide additional guidance about the effectiveness of tobacco countermarketing campaigns among audiences of interest and appropriate theories to use. In particular, research and evaluations have shown that stronger, hard-hitting, emotionally powerful and disturbing advertisements are effective in encouraging smokers to quit,[11-14] but these kinds of advertisements must not be overused. "Softer" advertisements are aimed at ensuring that smokers understand that services exist to help them quit, and that quitting can be difficult. The "Quitting Takes Practice" advertisements by the California Department of Health are examples of softer advertisements.[9] In general, mass media campaigns are most effective when they:[11]

- Are part of broader, comprehensive tobacco control programs designed to change a community's prevailing attitudes toward tobacco use.
- Convey simple messages.
- Are visually exciting.
- Include advertisements with strong negative emotional appeal that produce, for example, a sense of loss, disgust, or fear.
- Introduce persuasive new information or new perspectives about health risks to smokers and nonsmokers.
- Use personal-testimony or graphic-depiction formats to reach smokers and that youth find emotionally engaging but not authoritarian.
- Feature multiple message strategies, advertising executions and media channels to consistently attract, engage and influence diverse youth with varying levels of susceptibility to smoking.
- Provide adequate exposure to media messages over substantial periods of time.
- Avoid placement of advertisements meant to teach parents about talking with "your kids" when they may be viewed by adolescents.

In addition, many processes are available for understanding audiences such as social marketing,[16-20] and community-driven participatory models.[21,22] Formative research through focus groups provides an opportunity to elicit the needs, desires

and expectations of the target audience. Specifically, existing advertisements can be tested for effectiveness among target audiences. The CDC's Media Campaign Resource Center facilitates the use of existing advertisements, including some with evaluation data.[11] Key informants noted that it may be easier to obtain permission from state agency management and stakeholders to use an existing advertisement if other states have already done so and require fewer financial and time-related resources than creating new advertisements. In addition, the use of existing advertisements may appeal to decision makers who want to see their state doing at least as much as other states to reduce the burden of tobacco use.

The next step for Maine's program is to develop the evaluation that links program activities with outcomes. A logic model should be used to measure the progress toward program goals.[8] Comprehensive evaluation includes all three types of evaluation: formative, process, and outcome. For example, formative evaluation provides information about program design and development, such as qualitative communication checks of advertising concepts before production or quantitative copy tests to verify that produced advertisements communicate effectively to the target audience. Process evaluation provides information about the integrity of program implementation.[8,22] It measures relationships among partners, how an advertisement component fits into an overall program and message tracking. Outcome evaluation provides information about the progress toward program goals through short-term, intermediate and long-term outcomes. [8] These include indicators such as changes in attitudes or beliefs about tobacco, intentions, behaviors, the environment, and disease prevalence.[10] The following outcome evaluation designs meet the primary goals of media evaluations to address short-term, intermediate and long-term outcomes: field experiment, observational, post-only, pre-post only, multiple pre-post, repeated cross-sectional, and longitudinal.[10]

Maine intends to work with an independent evaluator, develop a survey linking key outcome indicators, and share lessons learned through internal mechanisms and external publications.

TRANSLATION TO HEALTH EDUCATION PRACTICE

The process outlined in this article may help other public health programs to use a similar process to work with stakeholders and to identify program and evaluation needs. Communicating and synchronizing with state and local stakeholders, gaining audience insights, developing an evaluation with an independent evaluator that links program activities with outcomes, and sharing lessons learned through internal mechanisms and external publications are all priorities that other programs may deem appropriate for their health communication programs.

REFERENCES

1. Centers for Disease Control and Prevention. Cigarette smoking among adults—United States, 2006. *Morb Mortal Wkly Rep*. 2007;56(44):1157-1161.

2. Centers for Disease Control and Prevention. *State tobacco activities tracking and evaluation (STATE) system.* Available at: http://apps.nccd.cdc.gov/statesystem. Accessed September 29, 2010.

3. Centers for Disease Control and Prevention. Cigarette smoking-attributable morbidity—United States, 2000. *Morb Mortal Wkly Rep*. 2003;52(35):842-844.

4. Institute of Medicine. *Ending the tobacco problem a blueprint for the nation*. Washington, D.C.: The National Academies Press; 2007.

5. Zaza S, Briss PA, Harris KW, editors. *The guide to community preventive services: what works to promote health*? New York: Oxford University Press; 2005.

6. Centers for Disease Control and Prevention. *Best practices for comprehensive tobacco control programs—2007.* Atlanta: U.S.Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2007.

7. U.S. Department of Health and Human Services. *Reducing tobacco use: a report of the surgeon general.* Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2000.

8. Centers for Disease Control and Prevention. Framework for program evaluation in public health. *Morb Mortal Wkly Rep*. 1999;48(No. RR-11).

9. MacDonald G, Starr G, Schooley M, Yee SL, Klimowski K, Turner K. *Introduction to program evaluation for comprehensive tobacco control programs*. Atlanta, Georgia: Centers for Disease Control and Prevention; 2001.

10. Centers for Disease Control and Prevention. *Designing and implementing an effective tobacco counter-marketing campaign*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2003.

11. Schar E, Gutierrez K, Murphy-Hoefer R, et al. *Lessons learned from youth tobacco use prevention mass media campaigns in nine countries*. Atlanta, GA: Centers for Disease Control and Prevention; 2006.

12. Hyland A, Wakefield MA, Higbee C, et al. Anti-tobacco television advertising and indicators of smoking cessation in adults: a cohort study. *Health Educ Res.* 2006;21(2):296-302.

13. Netemeyer R, Andrews C, Burton S. Effects of antismoking advertising-based beliefs on adult smokers' consideration of quitting. *Am J Public Health.* 2005:95(6);1062-1066.

14. Murphy-Hoefer R, Hyland A, Higbee C. Perceived effectiveness of tobacco countermarketing advertisements among young adults. *Am J Health Behav.* 2008;32:725-734.

15. Centers for Disease Control and Prevention. *Media campaign resource center*. Available at: http://www.cdc.gov/tobacco/mcrc. Accessed September 1, 2010.

16. Andreasen AR. *Marketing social change*. San Francisco: Jossey-Bass;1995.

17. Kotler P, Zaltman G. Social marketing:

an approach to planned social change. *J Mark* 1971;35:3-12.

18. New York State Department of Health. *Social marketing and public health lessons from the field: a guide to social marketing from the social marketing national excellence collaborative.* Albany, NY: Turning Point National Program Office; 2003.

19. Siegel M, Doner L. *Marketing public health: strategies to promote social change*. New York: Aspen Publishers;1998.

20. Lefebvre RC, Rochlin L. Social marketing. In: Glanz K, Lewis FM, Rimer BK, eds. *Health behavior and health education: theory, research, and practice*, 2nd ed. San Francisco: Jossey-Bass;1997:384-402.

21. Hennessey Lavery S, Smith ML, Esparza AA, et al. The community action model: a community-driven model designed to address disparities in health. *Am J Public Health.* 2005;95:611–616.

22. Centers for Disease Control and Prevention. *Introduction to process evaluation in tobacco use prevention and control*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2008.

23. McAlister A, Morrison TC, Hu S, et al. Media and community campaign effects on adult tobacco use in Texas. *J Health Comm*. 2004;9:95-109.